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July 9, 2012

Mr. Matthew Spears
U.S. EPA National Vehicle and
Fuel Emissions Laboratory
Office of Air and Radiation
2565 Plymouth Road
Ann Arbor, MI 48105

Re: Nonconformance Penalties for On-Highway Heavy-Duty Diesel Engines, Notice of Proposed Rulemaking; Docket No. EPA-HQ-OAR-2011-1000

Dear Mr. Spears,

On behalf of Mack Trucks, Inc. and Volvo Group North America, LLC ("Mack"), I am submitting the following response to your May 11, 2012 request for additional information regarding EPA's proposed rulemaking establishing nonconformance penalties for on-highway heavy-duty diesel engines, 77 *Fed. Reg.* 4,736 (NCP Proposal). Specifically, you requested information related to the costs associated with developing and implementing an SCR-equipped engine that is fully optimized to meet a 0.5 g/bhp-hr standard, as well as costs associated with a similar engine optimized to meet a 0.2 g/bhp-hr standard. Mack's response follows.

I. EPA must reconsider both its determination to issue an NCP rule and its proposed NCP levels in light of the *Mack Trucks* ruling

The U.S. Court of Appeals for the D.C. Circuit vacated EPA's Interim Final NCP Rule on June 12, 2012. *Mack Trucks, Inc. v. EPA*, No. 12-1077 (D.C. Cir. June 12, 2012). Although the Court did not rule on the merits of the IFR – as that was not necessary in order to resolve the procedural error before it – the Court did advise EPA that it was not likely to look favorably upon the Agency's decision to proceed with an NCP in the event EPA elects to issue a final rule and it is subsequently challenged. Specifically, the Court noted that "NCPs are not designed to bail out manufacturers that voluntarily choose, for whatever reason, not to adopt an existing compliant technology," and further noted that "[b]ased solely on what EPA has offered in the IFR, it at least appears to us that NCPs are likely inappropriate in this case." *Mack Trucks* at 15.

Based on our review of the administrative record for the final rule, there remains insufficient support for an NCP in this case, especially with respect to the key issue identified by the Court; whether Navistar voluntarily chose not to adopt an existing compliant technology. In fact, as Navistar already has conceded this point, and EPA has conceded that the NCP was proposed solely for Navistar, there can be no evidence refuting this conclusion. Accordingly, Mack's position that there is no true "technological laggard" with respect to the 2010 standard,

Mack's position that there is no true "technological laggard" with respect to the 2010 standard, and further that the NCP is neither warranted nor supportable, appears to be squarely in line with the reasoning of the Court. As such, EPA should not proceed with a final rule.

If EPA elects to proceed with this rule, however, it still must remain cognizant of and adhere to the Court's warning with respect to penalty levels and the upper limit. Here again, the Court expressed serious doubts with regard to EPA's IFR (and this proposal too):

> "[W]e emphasize that 'no legislation pursues its purpose at all costs,' especially when Congress explicitly says as much in the legislation. Though the Clean Air Act requires EPA to issue NCPs when it determines the necessary criteria are satisfied, it also expressly demands that EPA 'remove any competitive disadvantage to manufacturers whose engines or vehicles achieve the required degree of emission reduction.' As it is presented in the IFR, we are highly skeptical that the penalty and upper limit provided for in this NCP satisfy the congressional demand to protect compliant manufacturers."

Id (internal citations omitted). Based on this language, Mack finds it highly unlikely that EPA can proceed with the approach advanced in its proposed rule while following the Court's directive. Simply put, the penalty is far too low and the approach that yielded that penalty – which is based on a revised upper limit that eliminates any consideration of actual costs – is arbitrary, capricious and violates congressional intent. Mack strongly recommends that EPA rethink its proposal in light of this decision, with an eye towards avoiding necessity for and costs associated with future challenges.

II. Mack continues to have substantial concerns regarding the failure of EPA's proposed methodology to reflect actual compliance costs

Mack reiterates its concern, as set forth in its initial comments on the NCP rule, that EPA's proposed approach to determining an NCP is a significant deviation from both the regulatory requirements and EPA's historical practice insofar as it ignores actual cost data and supplants it with hypothetical estimates of industry costs. This approach is neither reliable nor necessary to determine an appropriate NCP. As a result, EPA's reinvented NCP development process – as applied in the NCP Proposal – yielded costs that are not even remotely representative of those incurred by SCR manufacturers in developing technologies necessary to meet the 0.2 g/bhp-hr standard.

Mack acknowledges that one manufacturer, Cummins Inc., designed an SCR engine to meet a 0.5-gram emissions level that it could market through use of credits. However, as Cummins noted in both its comments to EPA and its public hearing statement, its experience is different from the approach EPA took in the Proposed Rule in at least one fundamental aspect. Unlike Cummins' actual experience, EPA's hypothetical began with an engine that complied

fully with the 0.2 g/bhp-hr standard and then simply re-optimized it to meet a 0.5-gram level. In other words, EPA completely ignored the substantial research, development and production costs that SCR manufacturers, including Cummins, Mack, Volvo, and Daimler, invested to develop a 0.2-gram engine in the first place.

In addition, even if EPA did rely on the Cummins' experience – which it apparently did not insofar as it assumed the existence of a fully compliant 0.2-gram engine for purposes of optimizing a 0.5-gram engine – one manufacturer's limited experience in designing an SCR engine to meet a 0.5-gram limit is not representative of the entire industry's experience. Nor is it necessarily representative of a fully optimized 0.5-gram SCR engine. Accordingly, there appears to be little, if any, evidence that EPA's new hypothetical engine approach will yield an NCP that accurately reflects the competitive advantage Navistar will gain over the manufacturers of compliant engines in the industry.

As in every other NCP rulemaking, EPA has available to it, or can easily obtain, actual data on the costs incurred by complying manufacturers in meeting the 0.2 g/bhp-hr standard. EPA's justification for not relying on these data – that the data reflect costs of complying with a different upper limit – is simply not availing. The upper limit is intended as a cap on emissions, not a parameter for measuring costs incurred by manufacturers in meeting the standard. Where the upper limit differs from the previous standard, EPA must still capture the actual costs of complying with a new standard relative to the previous standard, as these costs reflect the complete, real story. Moreover, under EPA's formula, the NCP is reduced as an engine's emissions are lowered – thereby accounting for additional efforts made by technological laggards to reduce emissions as much as possible. Thus, EPA has articulated no reason to tie the upper limit – which is intended to lock such technological advances in place and prevent backsliding – to the formula used to determine compliant manufacturers' costs.

III. EPA's approach does not account for many costs incurred by complying manufacturers

The NCP contained in EPA's NCP Proposal not only fails to reflect actual costs of compliance, it also omits significant costs incurred by complying manufacturers. Most notably, by considering a hypothetical engine that already meets the 0.2-g/bhp-hr standard, EPA ignores all of the research and development costs associated with SCR. As explained in Mack's initial comments, this novel approach contravenes EPA's own long-held position that its regulations and the Clean Air Act require that these costs be factored into an NCP. *See* Mack Comments at 25. In avoiding these costs, noncompliant manufacturers not only gain a direct economic advantage, they also gain an advantage by having more funding available for the development or improvement of other, non-emission-related technologies. This potential damage of this advantage has been compounded both by the weak economy, and by EPA's ongoing revisions to certification guidance for SCR-equipped engines imposing unwarranted and costly restrictions on the technology's use and requiring complying companies to spend research and development funds to meet such new requirements.

In addition, EPA's approach omits fixed and variable costs faced by vehicle manufacturers in accommodating SCR-equipped engines in the vehicles. It also omits many costs faced by owners and operators of SCR-equipped vehicles that comply with the 0.2 g/bhp-hr standard, and warranty costs incurred by manufacturers. Finally, there are a host of additional concerns that Mack included in its initial comments, which, for the sake of brevity, are not restated here. These include initiating the penalty in MY 2012 for purposes of calculating the annual adjustment factor. Mack, therefore, refers EPA to its previous comments.

IV. EPA's hypothetical-engine approach must capture all economic benefits associated with meeting the higher emissions level

As explained above, Mack does not concede the validity of EPA's hypothetical-engine approach, finds it arbitrary and capricious, and will be forced to challenge this approach if it is used to justify arbitrary and capricious NCP levels (i.e., NCPs set at unjustifiably low levels, such as those in the NCP Proposal). That said, in response to EPA's request, Mack is providing the following additional comments with regard to the approach EPA included in the NCP Proposal.

First, at a minimum, EPA's approach must account for fuel economy benefits and other cost savings that would be realized from the development and sale of a 0.5-gram engine relative to a 0.2-gram engine. These were not included in the NCP Proposal, and as a result the proposal resulted in a grossly under-estimated NCP.

Second, EPA's NCP must account for the fact that Cummins – the only manufacturer that actually optimized a compliant engine to operate at a 0.5 gram level – calculated fuel-efficiency gains and cost savings of $8,100. This represents the floor of economic benefit that might accrue from the production of engines meeting a 0.5-gram level. However, EPA must base the NCP on the maximum possible benefits that can accrue from engines that are permitted to meet a 0.5-gram level instead of a 0.2-gram level to prevent backsliding by compliant manufacturers. To the extent manufacturers other than Cummins estimate that they could obtain even greater cost savings through production of 0.5-gram engines, EPA's NCP must account for this.

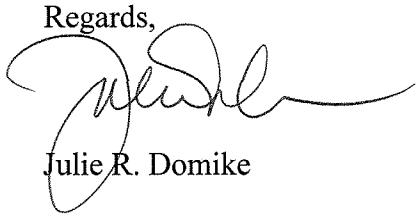
Based on its experience complying with higher emissions limits in other markets, such as Europe, Mack has estimated the additional cost savings and economic benefits it likely could obtain if it had the ability to produce 0.5-gram engines. Using an approach similar to what Mack adopted to meet Euro-VI standards, for instance, Mack estimates it could produce a 0.5-gram engine with economic benefits (increased fuel efficiency and other cost savings) that are $18,676 greater per engine than what an engine meeting a 0.2 g/bhp-hr standard could achieve. Similarly, the higher emission limits also would allow for the use of turbo-compounding in certain applications. A 0.5-gram engine using this technology would yield economic benefits of approximately $18,750 per engine relative to an engine that meets the 0.2 g/bhp-hr standard.

As it contains confidential business information, the basis for Mack's economic benefit analysis is provided separately. Based on this information, and that supplied by Cummins and

other engine and vehicle manufacturers, it is evident that EPA's proposed NCP is grossly insufficient, even if the Agency's own, flawed methodology is used. Accordingly, to the extent an NCP is even justified under the current circumstances (which it is not), the proposed penalty must be increased at least five-fold to approach what Mack would consider a reasonable level.

Thank you for the opportunity to submit this additional information for EPA's consideration in determining whether, and if so, how to finalize an NCP Rule for MY 2010.

Regards,



Julie R. Domike

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